

## Claims

1. A polypeptide which comprises the amino acid sequence represented by SEQ ID NO:2 or 4, and binds to CAP; or a  
5 polypeptide which consists of an amino acid sequence in which 1 to 10 amino acids are deleted, substituted, and/or inserted in the amino acid sequence represented by SEQ ID NO:2 or 4, and binds to CAP.

10 2. A polypeptide which consists of an amino acid sequence having a homology of 90% or more with the amino acid sequence represented by SEQ ID NO:2 or 4, and is a protein which binds to CAP.

15 3. A polypeptide consisting of the amino acid sequence represented by SEQ ID NO:2 or 4.

4. A polynucleotide encoding the polypeptide according to any one of claims 1 to 3.

20 5. An expression vector comprising the polynucleotide according to claim 4.

6. A cell transformed with the expression vector

25 according to claim 5.

7. A method for screening a binding inhibitor between the polypeptide according to any one of claims 1 to 3 and CAP, which comprises:

allowing the polypeptide to contact with a test  
5 substance,  
measuring change of binding between the polypeptide and CAP, and  
selecting a substance which inhibits the binding.

10 8. The method for screening according to claim 7, wherein the binding inhibitor is an agent for improving insulin resistance and/or an agent for improving glucose metabolism.

15 9. A method for screening an agent for improving insulin resistance and/or an agent for improving glucose metabolism, which comprises:

allowing a cell which expresses the polypeptide according to any one of claims 1 to 3 to contact with a  
20 test substance, and  
measuring change of the expression amount of the polypeptide.

10. A method for producing a pharmaceutical composition  
25 for improving insulin resistance and/or improving glucose metabolism, which comprises:

carrying out screening with the method for screening  
according to any one of claims 7 to 9, and

carrying out formulation using the substance obtained  
by the screening.